



TITLE:

Cover & Contents

AUTHOR(S):

CITATION:

Cover & Contents. 数理解析研究所講究録別冊 2009, B11

ISSUE DATE:

2009-04

URL:

<http://hdl.handle.net/2433/176782>

RIGHT:

RIMS Kôkyûroku Bessatsu B11

**New Trends in
Combinatorial Representation Theory**

April, 2009

Research Institute for Mathematical Sciences
Kyoto University

RIMS Kôkyûroku Bessatsu B11

New Trends in Combinatorial Representation Theory

April, 2009

Research Institute for Mathematical Sciences

Kyoto University, Kyoto, Japan

The papers presented in this volume of RIMS Kôkyûroku Bessatsu are in final form and refereed.
©2009 by the Research Institute for Mathematical Sciences, Kyoto University. All rights reserved.
Printed in Japan.

PREFACE

This volume of RIMS Kôkyûroku Bessatsu is the proceedings of the RIMS Conference

“Expansion of Combinatorial Representation Theory”

held at Research Institute for Mathematical Sciences (RIMS), Kyoto University from October 23 through October 26, 2007.

In the conference, 16 invited speakers talked about their recent research on combinatorial methods in representation theory, geometry and integrable systems. We hope it was a good opportunity for 63 participants to overview recent trends in combinatorial representation theory and get a hint for future research.

This volume collects 13 contributions from the speakers of the conference. All the papers are refereed. We thank the authors and anonymous referees for their great effort. Without their help this volume would not have been published.

This conference was supported by RIMS. We are very grateful to RIMS and in particular, to secretary staff, whose support made the conference successful and the editorial work smooth.

April, 2009

Susumu Ariki
Masato Okado

CONTENTS

1. Reiho Sakamoto	1
Finding rigged configurations from paths	
2. Masao Ishikawa, Hiroyuki Tagawa and Jiang Zeng	19
A q -analogue of Catalan Hankel determinants	
3. Yuuki Abe	43
Tensor representations for the quantum loop algebras of type A at roots of unity	
4. Hitoshi Konno	53
The elliptic quantum group $U_{q,p}(\widehat{\mathfrak{sl}}_2)$	
5. Toru Ohmoto	75
Thom polynomials and around	
6. Takeshi Ikeda and Hiroshi Naruse	87
Double Schubert polynomials of classical type and excited Young diagrams	
7. Toshiki Nakashima	101
Universal tropical R map of \mathfrak{sl}_2 and prehomogeneous geometric crystals	
8. Masaharu Kaneda	117
On the structure of parabolic Humphreys–Verma modules	
9. Kentaro Wada	125
A product formula for decomposition numbers of the cyclotomic q -Schur algebra and its analogue for the Fock space	
10. Shunsuke Tsuchioka	145
Catalan numbers and level 2 weight structures of $A_{p-1}^{(1)}$	
11. Hyohe Miyachi	155
Uno’s conjecture for the exceptional Iwahori–Hecke algebras	
12. Kento Nakada	179
Infinite pre-dominant integral weights for affine types	
13. Hiroyuki Yamane	197
Iwahori–Hecke type algebras associated with the Lie superalgebras $A(m, n)$, $B(m, n)$, $C(n)$ and $D(m, n)$	